GONCHARENKO, K. S.

KOSTYUKOV, V.A.; GONCHARENKO, K.S.; LEVITSKIY, G.S., inzhener, retsenzent.

[Reconditioning automobile and tractor parts] Vosstanovlenie avtotraktornykh detalei. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroim. lit-ry [Ukr. otd-nie] 1955. 94 p. (MIRA 7:7)
(Tractors--Repairing) (Automobiles--Repairing)

KOSTYUKOV, V.A.; GONCHARENKO, K.S.; BELETSKIY, M.L., redaktor; SOROKA, M.S., redaktor; [redacted] Ya.V., tekhnicheskiy redaktor

[Reconditioning tractor parts by means of gas and electric arc welding] Vosstanovlenie avtoraktornykh detalei gazovoi i elektrodugovoi svarkoi. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, Ukrainskoe otd-nie, 1955. 50 p. (MLRA 8:6)
(Tractors--Welding)

Goncharenko, K.S.

GONCHARENKO, Konstantin Semenovich; LEVITSKIY, G.S., inzhener, retsenzent; [redacted] inzhener, redaktor; SOROKA, M.S., redaktor; RUDENSKIY, Ya.V., tekhnicheskiy redaktor.

[Concise electroplating manual] Kratkii spravochnik gal'vanotekhnika. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1955. 223 p. (Electroplating)

LAVORKO, Pavel Konstantinovich; GONCHARENKO, K.S., kand.tekhn.nauk,
retsenzent; ONISHCHENKO, N.P., inzh., red.

[Metal coatings; manual for machine builders] Pokrytiia metallov; spravochnoe posobie dlia konstruktorov. Moskva, Gos.nauchno-tekhn. izd-vo mashinostr.lit-ry, 1959. 144 p.
(MIRA 12:10)

(Corrosion and anticorrosives)

PHASE I BOOK EXPLOITATION SOV/4749

Goncharenko, Konstantin Semenovich

Poristoye khromirovaniye detaley mashin (Porous Chromium Plating of Machine Parts) 2d ed., rev. and enl. Moscow, Mashgiz, 1960. 170 p. 8,000 copies printed.

Reviewer: Ye.F. Blashchuk, Engineer; Eds.: P.K. Lavorko, Engineer, and P.Ya. Furer; Chief Ed. (Southern Division, Mashgiz): V.K. Serdyuk, Engineer.

PURPOSE: This book is intended for workmen, foremen, and process engineers of electroplating departments of machine-building plants and automobile-repair shops.

COVERAGE: The book reviews electrolytic methods of producing porous chromium coatings for protecting steel, cast iron, and aluminum parts of various machines and mechanisms. The author discusses the composition of electrolytes used in porous chromium plating and makes recommendations for selecting the desirable thickness of chromium coating and type of coating porosity. Also considered are measures taken to prevent troubles which may occur in the process of porous chromium plating. Information on equipment, ventilation, and

Card ~~1/4~~

safety techniques is included. According to the foreword, the activities of the Leningradskiy gosudarstvennyy institut prikladnoy khimii (Leningrad State Institute of Applied Chemistry) greatly contributed to the development of chromium plating in the Soviet Union. This institute was the first in the USSR to develop composition specifications for chromium electrolytes and the processes of ornamental and wear-resistant chromium coating. No personalities are mentioned. There are 59 references, all Soviet.

TABLE OF CONTENTS:

Foreword 3

Ch. I. General Characteristics of the Electrolytic Chromium Plating Process 5
  Physicochemical properties of electrolytic chromium 5
  Specific features of electrolysis of chromium 8

Ch. II. Characteristics of Porous Chromium Coatings and Methods of Producing Such Coatings 10

Card 2/4

GONCHARENKO, L.

BILOV, Ye., kandidat tekhnicheskikh nauk; MALEVANNYY, A., inzhener;
GONCHARENKO, L., inzhener.

Equipment used in removing scale from cylinder blocks and heads in automobile engines. Avt.transp. 35 no.7:23-24 Jl '57.
(MIRA 10:8)

(Automobiles--Engines--Cylinders)

GONCHARENKO, L.G.

Tanymecus dilaticollis Gyll. in the Danube Valley regions of the Ukrainian S.S.R. Vop. ekol. 7:38-39 '62. (MIRA 16:5)

1. Sel'skokhozyaystvennyy institut, Odessa.
(Danube Valley--Weevils)

GONCHARENKO, L.G., assistent

The weevil Tanymecus dilaticollis Gyll on corn. Zashch.rast. ot vred.i bol. 5 no.7:26-27 Jl '60. (MIRA 16:1)

1. Kafedra entomologii Odesskogo sel'skokhozyaystvennogo instituta.
(Odessa Province—Corn (Maize)—Diseases and pests)
(Odessa Province—Weevils—Extermination)

GONCHARENKO, L.G., assistent

Predicting the number of the weevil Tanymecus dilaticollis. Zashch. rast. ot vred. i bol. 9 no.1:43-45 '64. (MIRA 17:4)

1. Odesskiy sel'skokhozyaystvennyy institut.

GONCHARENKO, L. I.

Goncharenko, L. I.

"The clinical-anatomical principles for rectoromanoscopy in young children." L'vov State Medical Inst. L'vov, 1956. (Dissertation for the degree of Doctor of Medical Science)

Knizhnaya letopis
No. 15, 1956. Moscow

GONCHARENKO, Ye.I.; GONCHARENKO, L.I.; MALYUK, V.I.

Device for photodocumentation of rectoromanoscopic examinations. Vrach. delo no.6:135-136 Je'63. (MIRA 16:9)

1. Kafedra normal'noy anatomii (zav. - prof. A.P.Lyubomudrov) i kafedra detskikh bolezney (zav. - prof. S.I.Ignatov) L'vovskogo meditsinskogo instituta.

(RECTUM--EXPLORATION)

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(Oak)

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So.: Knizhnaya Letopis', No. 6, 1956.

GONCHARENKO, L.Ye. [Honcharenko, L.IU.]

Relation between the processes of cell division and migration in growing nuclei of the human trigeminal nerve. Dop. AN URSR no.9:1226-1229 '61. (MIRA 14:11)

1. Institut zoologii AN USSR. Predstavleno akademikom AN USSR V.G.Kas'yanenko [Kas'ianenkc, V.H.].

(TRIGEMINAL NERVE)
(CELLS)

GONCHARENKO, L.Ye. [Honcharenko, L.IU.]

Development of the mesencephalic nucleus of the human trigeminal nerve. Dop. AN URSR no.4:535-539 '62. (MIRA 15:5)

1. Institut zoologii AN USSR. Predstavleno akademikom AN USSR V.G.Kas'yanenko [Kas'ianenko, V.H.].
(TRIGEMINAL NERVE) (EMBRYOLOGY, HUMAN)

GONCHARENKO, L.Ye. (Kiyev, 54, Gogolevskaya ul., 23, kv.3)

Development of sensory nuclei of the human trigeminal nerve and their cellular structure. Arkh. anat., gist. i embr. 43 no.8:29-34 Ag '62. (MIRA 17:8)

1. Otdel evolyutsionnoy morfologii (zav. - akademik AN UkrSSR V.G. Kas'yanenko) Instituta zoologii AN UkrSSR.

GONCHARENKO, L.Ye. (Kiyev, 54, Gogolevskaya ul., 23, kv.3)

Differentiation of the motor nucleus of the human trigeminal nerve. Arkh. anat., gist. i embr. 44 no.4:105-109 Ap '63.
(MIRA 17:6)

1. Otdel evolyutsionnoy morfologii (zav.- akademik AN UkrSSR prof. V.G. Kas'yanenko) Instituta zoologii AN UkrSSR, Kiyev.

GONCHARENKO, L.Ye. [Honcharenko, L.IU.]

Characteristics of microinnervation of the capsules of coxofemoral joints in some carnivorous animals. Dop. AN URSR no.5:666-670 '64. (MIRA 17:6)

1. Institut zoologii AN UkrSSR. Predstavleno akademikom AN UkrSSR V.G.Kas'yanenko [Kas'ianenko, V.H.].

7

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Characteristics of the microinnervation of the capsules of humeral and coxal joints in some rodents. Dop. AN URSR no.9:1238-1241 '64. (MIRA 17:11)

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1.Kiivs'kiy stomatologichniy institut. Predstaviv diysniy chlen AN URSR V.G.Kas'yanenko.
(Nerves, Facial) (Brain)

GONCHARENKO, M., inzh.-polkovnik

If the machine begins to speak. Voen.-znan. 41 no.12:34-35
D '65. (MIRA 18:12)

GONCHARENKO, Mikhail Nikolayevich; MAKAROV, S.I., red.; USPENSKIY, N.M.;
KARYAKINA, M.S., tekhn.red.

[Cybernatics in military science] Kibernetika v voennom dele.
Moskva, Izd-vo DOSAAF, 1960. 174 p. (MIRA 13:7)
(Automatic control) (Military art and science)

GONCHARENKO, M., polkovnik zapasa

Cybernetics and reconnaissance. Voen. znan. 39 no.5:25 My '63.
(MIRA 16:5)
(Military reconnaissance) (Electronics in military engineering)

GONCHARENKO, Mikhail Nikolayevich; FILATOV, I.V., red.; USPENSKIY, N.M., red.; KOROLEV, A.V., tekhn. red.

[Missiles and the problem of antimissile missiles]Rakety i problema antiraket. Moskva, Izd-vo DOSAAF, 1962. 259 p. (MIRA 16:1)

(Rockets)

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Cybernetics in battle control. Voen. znan. 35 no.12:35-36 D '59
(Cybernetics) (Military art and science) (MIRA 13:3)

GONCHARENKO, M., polkovnik.

Antireflection measures in optics. Voen. znan. 34 no.11:36 N '58.
(MIRA 12:1)

Reflection (Optics))

GONCHARENKO, M., polkovnik v zapase.

Artillery cybernetics. Voen. znan. 34 no.2:22-24 F '58. (MIRA 11:3)
(Antiaircraft artillery) (Cybernetics)

GONCHARENKO, M.

GONCHARENKO, M., polkovnik v zapase.
colonel (RESERVE)

Cybernetics in military science. Voen. znan. 33 no.4:10-12 Ap '57.
(Cybernetics) (MLRA 10:6)

GONCHARENKO, M.

Self-propelled artillery. Voen.znan. 32 no.10:4-5 O '56.
(MLRA 10:2)

(Tanks (Military science))

GONCHARENKO,M.

Optical instruments for observation. Voen.znan.31 no.8:18-19 Ag'55.
(Field glasses) (MLRA 8:12)

C-O-N-F-I-D-E-N-T-I-A-L

GONCHARENKO, M. N.

Author of book, Rakety i problema antiraket (Rockets and the Problem of Antirockets), published in Moscow in 1962 by the DOSAAF Publishing House. The book contains 260 pages. (Knizhnaya Letopis', No 23, 1962)

GONCHARENKO, M. N.

Kibernetika v voennom dele /Cybernetics in Military Applications/, Publishing House of the DOSAAF /All-Union Society for the Promotion of the Army, Air Force, and Navy/, Moscow, 1960, 176 pages.

AM4007945 **BOOK EXPLOITATION** S/

Goncharenko, Mikhail Nikolayevich

Cybernetics in military science (Kibernetika v voyennom dele) [2d ed., rev. and enl.] Moscow, Izd-vo DOSAAF, 63. 0343 p. illus., map. 30,000 copies printed.

TOPIC TAGS: cybernetics, military cybernetics, logistics, digital computer, information theory, antiaircraft defense, military computer application

PURPOSE AND COVERAGE: The book is a brief outline of the main ideas of general cybernetics and of military cybernetics, defined as a new applied-science theory aimed at increasing the effectiveness of control of armies and military technology. The book deals with the main ideas of cybernetic machines and devices and with the principles of automatic control and information theory. The operating principles of electronic computers are briefly described. Applica-

Card 1/3

AM4007945

tions of cybernetic machines in modern armies are described with examples from the practice of non-Soviet armies. Problems involving the use of artificial earth satellites and new radiation apparatus such as lasers for military purposes are also discussed. The book is for the general reader.

TABLE OF CONTENTS:

Introduction - - 3

I. Numbers and quantities. Simple and complex calculating machines - - 9
II. Cybernetics and its problems in military science - - 27
III. Automatic control - - 46
IV. Concepts of information theory - - 62
V. Electronic digital computers - - 74
VI. Electronic computers in aviation - - 100

Card 2/3

AM4007945

VII. Cybernetics in antiaircraft defense - - 133
VIII. Use of cybernetics to solve operational and tactical problems - - 174
IX. Modern communication means and cybernetics - - 216
X. Electronic control machinery in the navy - - 237
XI. Army logistics and automatization of control of supplies - - 268
XII. Electronic trainers and controllers - - 280
XIII. Simulating machinery and design - - 297
XIV. News in the development of electronic computers - - 312
Conclusion - - 341

SUB CODE: AR, CP, CO SUBMITTED: 15Jan63 NR REF SOV: 013

OTHER: 133 DATE ACQ: 20Dec63

Card 3/3

L 10336-63

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PHASE I BOOK EXPLOITATION SOV/6397

46

Goncharenko, Mikhail Nikolayevich

Kibernetika v voyennom dele (Military Use of Cybernetics) Moscow, Izd-vo DOSAAF, 1960. 174 p. 34,000 copies printed.

Eds.: S. I. Makarov, and N. M. Uspenskiy; Tech. Ed.: M. S. Karyakina.

PURPOSE: This book is intended for the nonspecialized general reader.

COVERAGE: The fundamentals underlying cybernetic machinery and devices are briefly discussed, and concepts of automatic control and the theory of information are outlined. The principles of computer operation are described. Examples drawn from Western armed forces serve to illustrate the utilization of cybernetic machinery and devices in the various branches of the military services, as well as in the designing and testing of new combat equipment and armament. There

Card 1/5

L 10336-63
Military Use of Cybernetics (Cont.) SOV/6397 0

are 41 references, 23 Soviet, including 3 translations, and 18 English.

TABLE OF CONTENTS:

Introduction 3

The contribution of Soviet scientists to the development of Professor Nerbert Wiener's theories on cybernetics is stressed. The West is criticized for its alleged belief that future wars will be decided by unmanned cybernetic machinery. Field Marshall Montgonery is quoted in this connection.

Ch. I. Numbers and Values. Simple and Complex Computers 8

Ch. II. Definition of Cybernetics 20

Ch. III. Automatic Control 27

Ch. IV. Concept of the Theory of Information 43

The theory of information is defined as the theory of transmission of information along communication channels.

Card 2/5

L 10336-63
Military Use of Cybernetics SOV/6397

The terms "transmitter," "receiver," "symbol," "signal," "code," and the role of the law of probability are explained. The American SAGE system is used to illustrate automatic retrieval, transmission, and processing of information and automatic production of appropriate resolutions.

Ch. V. Electronic Computers 53

Ch. VI. Electronic Computers Used in Aviation 75

Ch. VII. Cybernetics Used in Air Defense 93

Ch. VIII. Automatic Control Equipment Used in Artillery 111

Ch. IX. Problems in the Utilization of Cybernetics by the Headquarters of Large Units 128

This chapter asserts that modern warfare requires the automation of the means of reconnaissance, of communication, and of coding and the processing of information. The

Card 3/5

L 10336-63
Military Use of Cybernetics SOV/6397
O

American "BSS" automatic control system for troops in action, the electronic stenographic device of French Engineer Albert Ducrot, and the American IBM-701 translating computer are briefly described.

Ch. X. Army Rear and the Automatic Control of Supplies 139

Ch. XI. Control Systems Used in the Navy 146

Ch. XII. Analog Computers and Designing 158

The importance of utilizing electronic digital and analog computers in investigation and design related to modern military technology is stressed. Universal analog computer operations, as well as the Soviet analog computers ЭМУ-5 and ЭМУ-8 are described in some detail. The British "Tridak" and the American "Typhoon" are also mentioned.

Conclusion 170

Card 4/5

L 10338-63
Military Use of Cybernetics SOV/6397

It is alleged that while in the Soviet Union automation is a means of speeding up the build up of the Communist society, in the capitalist countries it results in creating unemployment and huge profits for the rich and represents another means for the exploitation of the toiling masses.

Bibliography 174

AVAILABLE: Library of Congress

SUBJECT: Cybernetics

bm/Ch
Card 5/5

RZ/fmr/svb
7/24/63

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Nature prompts.... Voen. znan. 41 no.3:36-37 Mr '65. (MIRA 18:5)

SOV-113-58-10-

AUTHORS: Goncharenko, M.A., Degtyarev, V.I., Gal'perin, V.I.

TITLE: Double-Action Two-Crank Presses of Soviet Design (Dvukhkrivoshipnyye pressy dvoynogo deystviya otechestvennoy konstruktsii)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 10, pp 33-35 (USSR)

ABSTRACT: During the past years, Soviet automobile plants predominantly used foreign double-action presses. The development of the Soviet automobile industry required a greater number of double-action presses of modern design. Therefore, GOST 8247-56 was established for two-crank double-action presses. According to this standard, a project was developed which provided double-action presses in different sizes. The Dnepropetrovskiy zavod srednikh gidravlicheskikh i tyazhelykh mekhanicheskikh pressov (Dnepropetrovsk Plant for Medium Hydraulic and Heavy Mechanical Presses) produces presses according to the aforementioned project. The authors explain some of the features of these presses, which have welded

Card 1/2

SOV-113-58-10-11/16

AUTHORS: Goncharenko, M.A., Degtyarev, V.I., Gal'perin, V.I.

TITLE: Double-Action Two-Crank Presses of Soviet Design (Dvukhkrivoshipnyye pressy dvoynogo deystviya otechestvennoy konstruktsii)

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Card 1/2

Double-Action Two-Crank Presses of Soviet Design SOV-113-58-10-11/16

frames, and which are comparable to the best foreign models. Another chapter deals with the safety measures taken with the new press types. There are 3 diagrams, 1 photo and 1 Soviet reference.

1. Automotive industry--USSR 2. Presses--Design 3. Presses --Standards

Card 2/2

GONCHARENKO, M.A.

Diploma projects. Avt.dor. 23 no.11:30 N'60. (MIRA 13:11)
(Dissertations, Academic)

GONCHARENKO, M A

1-7

PHASE I BOOK EXPLOITATION SOV/5658

Ivanov, Aleksandr Petrovich, Candidate of Technical Sciences, and Viktor Dmitriyevich Lisitsyn, Candidate of Technical Sciences, eds.

Modernizatsiya kuznechno-shtampovochnogo oborudovaniya (Modernization of Die-Forging Equipment) Moscow, Mashgiz, 1961. 226 p. Errata slip inserted. 10,000 copies printed.

Reviewer: V. Ye. Nedorezov, Candidate of Technical Sciences; Ed. of Publishing House: T. L. Leykina; Tech. Ed.: A. A. Bardina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for foremen, machinists, designers, and process engineers concerned with the modernization and designing of die-forging equipment. It may also be used by students at schools of higher education.

COVERAGE: The book contains material presented at the Conference

Card 1/8

Modernization of Die-Forging Equipment 27

SOV/5658

on Problems in the Modernization and Operation of Die-Forging Equipment, held in November 1958 in Leningrad. The Conference was called by Leningradskiy Sovet narodnogo khozyaystva, Sektsiya obrabotki metallov davleniyem Leningradskogo oblastnogo pravleniya NTO Mashprom (Leningrad Council of the National Economy, Section of Metal Pressworking at the Leningrad Oblast Board of the Scientific and Technical Society of the Machine Industry) and Leningradskiy mekhanicheskiy institut (Leningrad Mechanical Engineering Institute). Actual problems in the modernization, operation, and repair of die-forging equipment are described. Analyses are provided for problems involved in the mechanization and automation of die-forging and stamping operations. Also included are practical data to be used in the modernization of equipment. No personalities are mentioned. There are 59 references: 56 Soviet, 2 German, and 1 English.

TABLE OF CONTENTS:

Foreword 3

Card 2/8

27

Modernization of Die-Forging Equipment SOV/5658

Ch. I. General Problems in the Modernization of Die-Forging Equipment 5

1. Basic trends in the modernization of die-forging equipment (V. B. Gordin, Candidate of Technical Sciences) 5
2. The requirements for die-forging equipment (A. P. Ivanov, Candidate of Technical Sciences) 8

Ch. II. Modernization of Forging and Die-Forging Steam Hammers 18

1. Hammers and their role in modern die-forging equipment (Z. M. Ginzburg, Engineer) 18
2. The modernization of steam-distributing devices of hammers (A. L. Ashkinazi, Candidate of Technical Sciences, and I. I. Kozhinskiy, Engineer) 19
3. Modernization of hammer control and drive (A. L. Ashkinazi, Z. I. Ginzburg, and K. K. Yekimov, Engineer) 26
4. Modernization and repair of foundations and anvil blocks of hammers (Yu. V. Belyayev, Candidate of Technical Sciences, Z. M. Ginzburg, and I. I. Kozhinskiy) 31

Card 3/8

5. Modernization and repair of hammer frames and guides (V. A. Zhivchikov, Engineer, and I. I. Kozhinskiy) 38
6. Modernization and repair of hammer cylinders and piston rods (Z. M. Ginzburg, V. A. Zhivchikov, I. I. Kozhinskiy, A. M. Kaznacheyev, and M. V. Tilinskiy) 41
7. Modernization and repair of rams (I. I. Kozhinskiy) 50
8. Lubrication of hammers (I. A. Gorbunov, I. I. Kozhinskiy, and A. I. Kaznacheyev) 53

Ch. III. Modernization of Steam-Hydraulic and Hydraulic Presses 56
1. Modern trends and the outlook for modernization of hydraulic presses (A. L. Ashkinazi and V. B. Gordin) 56
2. The ways for decreasing the weight and overall dimensions of hydraulic presses (Yu. P. Kyz'ko, Engineer) 58
3. Modernization of steam-hydraulic "United" 2,000-ton forging press (B. P. Vasil'yev and V. A. Yelezov, Engineers) 63
4. Automation of steam-hydraulic "United" presses (S. P. Moiseyev, Engineer) 71

27

Modernization of Die-Forging Equipment SOV/5658

Ch. IV. Modernization of Mechanical Crankshaft Presses 78

1. Basic methods for the complete modernization of crankshaft presses (M. A. Goncharenko, Engineer, and V. D. Lisitsyn, Candidate of Technical Sciences) 78
2. Modernization of the drives of mechanical presses (A. P. Ivanov and V. B. Gordin, Candidates of Technical Sciences) 87
3. Modernization of engaging and disengaging mechanisms of crankshaft presses (V. A. Zhivchikov, A. M. Kaznacheyev, and V. D. Lisitsyn) 89
4. Modernization of control system of mechanical presses (V. D. Lisitsyn) 100
5. Modernization and repair of individual subassemblies and parts of mechanical presses (I. I. Kozhinskiy, and V. D. Lisitsyn) 108
6. Modernization of mechanical presses for the purpose of protecting them against overloading (Yu. M. Buzikov, Engineer) 115
7. Safety technique in the modernization of mechanical presses (V. D. Lisitsyn) 129

Card 5/8

Ch. V. Modernization of Horizontal-Forging Machines [Upsetters], Percussion Presses, and Shears 133
1. Modernization of horizontal-forging machines (V. A. Zhivchikov and I. I. Kozhinskiy) 133
2. Modernization of power-screw percussion presses (I. I. Kozhinskiy, and A. M. Kaznacheyev) 141
3. Modernization of eccentric shears for blanking operations (I. I. Kozhinskiy and V. N. Cherkasov, Engineer) 144

Ch. VI. Mechanization of Forging and Hot Die-Forging Operations in the Modernization of Hammers and Hydraulic Presses 149
1. Mechanisms and equipment for forging and die forging on hammers (K. K. Yekimov, Engineer) 149
2. Mechanisms and equipment for press-forging (K. K. Yekimov, and S. P. Moiseyev) 155

Ch. VII. Mechanization and Automation of Stamping Operations in The Modernization of Crankshaft Presses 160

Modernization of Die-Forging Equipment SOV/5658

1. Trends in application of mechanizing and automatizing devices in the modernization of presses (V. D. Lisitsyn and M. A. Goncharenko) 160
2. Mechanical devices for feeding band and strip stock (M. A. Gutnik, Engineer, V. D. Lisitsyn, and Ye. S. Nazarenko, Engineer) 163
3. Mechanical devices for feeding piece-blanks (V. D. Lisitsyn, and Ye. S. Nazarenko) 177
4. Fully automated [production] lines (E. E. Roytershteyn, Engineer) 186

Ch. VIII. Experimental Investigation of Die-Forging Equipment 191
1. General sequence for the calculation and design of machines in the modernization of die-forging equipment (A. P. Ivanov) 191
2. Basic problems of the drive-system dynamics and of the automatic feed of stock in the modernization of presses (A. P. Ivanov and Ye. S. Nazarenko) 193

Card 7/8

21

Modernization of Die-Forging Equipment SOV/5658

3. Methods and means for the experimental investigation of die-forging equipment (V. I. Zaytsev and M. P. Pavlov, Candidates of Technical Sciences) 203

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Card 8/8

VK/wrc/ec
11-7-61

RABINOVICH, B.V., kand.tekhn.nauk; GONCHARENKO, M.F., inzh.

Relationship between physical properties of molten cast iron and the nature of graphite crystallization. Izv.vys.ucheb. zav.; mashinostr. no.4:3-10 '60. (MIRA 14:4)

1. Moskovskiy avtomekhanicheskiy institut.
(Cast iron)

GONCHARENKO, M.I.

[redacted]

Hydraulic fracturing of strata in the Lokbatan-Umbaki areas. Azerb. neft. khoz. 36 no.6:25-27 Je '57. (MLRA 10:9)

(Baku--Petroleum engineering)

KORKIN, Yuriy Georgiyevich; GONCHARENKO, M.M., red.; MANOLE, M.G., red.; ROZHKO, K.M., red.

[French-Russian welding dictionary] Frantsuzsko-russkii slovar' po svarke. Moskva, Sovetskaia entsiklopediia, 1965. 205 p. (MIRA 18:8)

18.3000

75575
SOV/130-59-10-7/20

AUTHORS: Shutkin, N. I., Goncharenko, M. S. (deceased)

TITLE: Melting of Titanium-Containing Stainless Steel Without the Application of Ferrotitanium

PERIODICAL: Metallurg, 1959, Nr 10, pp 12-14 (USSR)

ABSTRACT: Aluminothermic reduction of Ti from TiO_2 was tested at "Elektrostal'" Plant (zavod "Elektrostal'"). However, the high cost of TiO_2 makes a large-scale introduction of the process inexpedient. Direct alloying of acid resistant 1Kh18N9T-steel with ilmenite concentrate produced good results. Sequence of operation: (1) composition of charge from stainless and low-alloy steel as well as soft iron waste for metal with 12% Cr, 12.5% Ni, about 1% Si, and 0.35% C; (2) addition of gaseous oxygen to accelerate process by blowing through bath to bring about boiling and remove excess carbon; (3) slag deoxidation with 45% ferrosilicon; (4) furnace

Card 1/4

Melting of Titanium-Containing Stainless Steel Without the Application of Ferrotitanium

75575
SOV/130-59-10-7/20

addition of a given quantity of ferrochrome; (5) removal of slag after complete melting of ferrochrome and addition of aluminothermic copper; (6) addition of aluminothermic mixture is followed immediately by the introduction of a limestone-fluorspar mixture (2 : 1) in quantities of 17 kg/t ingot; (7) switching on current; (8) tapping within 7 to 10 minutes after addition is completed. Optimal composition of aluminothermic mixture is shown in Table 1. The substitution of ferrotitanium by ilmenite and decreased melting period cuts production cost. However, alloying techniques with ilmenite need further study. Titanium extraction from ilmenite varies between 38 and 45%, so that the extraction of titanium from the basic material is higher than in alloying with ferrotitanium. There are 3 tables.

Card 2/4

Melting of Titanium-Containing Stainless Steel Without the Application of Ferrotitanium

75575
SOV/130-59-10-7/20

TABLE 1

Materials	Quantity kg/t	Chemical Composition, %					
		SiO_2	CaO+MgO	MnO	Fe	TiO_2	other admixtures
Fired Ural ilmenite concentrate	38	1,53—3,03	—	0,44—1,87	34,35—33,80	41,6—43,05	—
Powdered iron ore "Sin'ka"	4	2,20	—	—	66,82	—	—
Ground limestone	4	1,02	93,0	—	—	—	1,8
		Al	Si	Cu	Fe	Zn	
Secondary aluminum powder	19	90,0—93,1	1,67—1,85	2,8—2,5	1,04—1,50	0,25—0,36	

Card 3/4

Melting of Titanium-Containing Stainless Steel Without the Application of Ferrotitanium

75575
SOV/130-59-10-7/20

TABLE 2

Composition of Metal, %

Nr of Melt	C	S	Mn	S	P	Cr	Ni	Ti	Cu
A-48393	0.09	0.56	1.12	0.012	0.028	18.28	10.47	0.34	0.32
A-48444	0.07	0.36	0.90	0.011	0.029	17.85	10.90	0.33	0.20
A-49054	0.08	0.44	0.85	0.016	0.026	17.50	10.60	0.42	0.20
A-49057	0.08	0.60	1.04	0.014	0.029	17.95	10.60	0.49	0.20

ASSOCIATION: Plant "Elektrostal'" (Zavod "Elektrostal'")

Card 4/4

VINOGRAD, M.I., kand.tekhn.nauk; GONCHARENKO, M.S., inzh. [deceased];
DORONIN, V.M., inzh.; TOPILIN, V.V., inzh.; CHERNINA, B.G., inzh.;
Prinimali uchastiye: SHEYN, A.S., kand.tekhn.nauk; GORSKIY, V.N.,
inzh.; ARKHIPOVA, V.P., inzh.; LAGUNTSOVA, Ye.V., inzh.;
KISELEVA, S.A., inzh; RYBAKOVA, V. Ya., inzh.; BYSTRIKOVA, I.N.,
tekhnik; BURDYUCHKINA, Ye.P., tekhnik; SOLODIKHIN, I.P., tekhnik.

Improving the process of making EI347 steel for bearings.
Stal' 21 no.6:543-546 Je '61. (MIRA 14:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii i zavod "Elaktrostal'."

(Bearing metals)

Goncharenko, M.U.

BOROVSKIY, P. V.

PHASE I BOOK EXPLOITATION SOV/6206 75

Konferentsiya po teorii plastin i obolochek. Kazan', 1960.

Trudy Konferentsii po teorii plastin i obolochek, 24-29 oktyabrya 1960. (Transactions of the Conference on the Theory of Plates and Shells Held in Kazan', 24 to 29 October 1960). Kazan', [Izd-vo Kazanskogo gosudarstvennogo universiteta] 1961. 426 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial. Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina.

Editorial Board: Kh. M. Mushtari, Editor; F. S. Isanbayeva, Secretary; N. A. Alumyae, V. V. Bolotin, A. S. Vol'mir, N. S. Ganiyev, A. L. Gol'denveyzer, N. A. Kil'chevskiy, M. S. Kornishin, A. I. Lur'ye, G. N. Savin, A. V. Sachenkov, I. V. Svirskiy, R. G. Surkin, and A. P. Filippov. Ed.: V. I. Aleksagin; Tech. Ed.: Yu. P. Semenov.

PURPOSE: The collection of articles is intended for scientists and engineers who are interested in the analysis of strength and stability of shells.

Card 1/14

75

Transactions of the Conference (Cont.) SOV/6206

COVERAGE: The book is a collection of articles delivered at the Conference on Plates and Shells held in Kazan' from 24 to 29 October 1960. The articles deal with the mathematical theory of plates and shells and its application to the solution, in both linear and nonlinear formulations, of problems of bending, static and dynamic stability, and vibration of regular and sandwich plates and shells of various shapes under various loadings in the elastic and plastic regions. Analysis is made of the behavior of plates and shells in fluids, and the effect of creep of the material is considered. A number of papers discuss problems associated with the development of effective mathematical methods for solving problems in the theory of shells. Some of the reports propose algorithms for the solution of problems with the aid of electronic computers. A total of one hundred reports and notes were presented and discussed during the conference. The reports are arranged alphabetically (Russian) by the author's name.

Card 2/14

Transactions of the Conference (Cont.) SOV/6206

Ganiyev, N. S. Inverse Problems of Bending of Shells of Rectangular Plan 107

Gnatykiv, V. N. Axially Nonsymmetrical Deformation of a Shallow Spherical Shell 113

Gnuni, V. Ts. On the Boundaries of Dynamic Instability of Shells 117

Gontkevich, V. S. Natural Vibrations of Orthotropic Cylindrical Shells 124

Goncharenko, M. V. Statistical Method in the Problem of Pure Bending of a Cylindrical Shell 130

Goryainov, Yu. V., Yu. I. Kadashevich, and I. L. Mironov. On the Hydrodynamic Forces Caused by the Dynamic Buckling of Cylindrical Shells Immersed in a Liquid 137

Card 6/14

ACC NR: AT6029227 SOURCE CODE: UR/0000/66/000/000/0046/0055

AUTHOR: Goncharenko, N. G.

ORG: none

TITLE: An approximate appraisal of the effects of the incremental form and the method of numerical integration on the solution accuracy of equations for a nonlinear automatic control system

SOURCE: Vsesoyuznaya konferentsiya-seminar po teorii i metodam matematicheskogo modelirovaniya. 4th, Kiev, 1964, Vychislitel'naya tekhnika v upravlenii (Computer technology in control engineering); trudy konferentsii. Moscow, Izd-vo Nauka, 1966, 46-55

TOPIC TAGS: nonlinear automatic control, aircraft control system, nonlinear differential equation, numeric analysis, numeric solution, harmonic function

ABSTRACT: The motion of an aircraft can be described by a system of nonlinear differential equations

$$\frac{dx_i}{dt} = p_i(x_1, x_2, \ldots, x_n t), \quad i = 1, 2, \ldots, n. \qquad (1)$$

One method for solution of complex, higher order differential equation systems is their approximation by a system of linearized equations of the type

$$\frac{dx_i}{dt} = \sum_{j=1}^{n} a_{ij} x_j + f_i(t), \quad \text{where} \quad a_{ij} = \frac{\partial p_i}{\partial x_j}, \qquad (2)$$

Card 1/3

0

and their subsequent solution using conventional numerical techniques. Frequently, such approximation is inadequate for nonlinear automatic control systems with saturation, dead zone, etc., where the characteristics of nonlinearities must be appropriately accounted for. One of the approximate methods for linear presentation of nonlinearities is the harmonic balance method (Popov, E. P., and Paltov, I. P., 1960). According to this method a nonlinear element may be expressed by a transfer function (complex gain coefficient)

$$W_n = R(A,\omega) = B(A,\omega) + jC(A,\omega), \tag{3}$$

where A is the amplitude of the fundamental of the signal at the input to the nonlinear element, ω is the frequency. This method is applied if the following condition is fulfilled

$$\left|\frac{R(jk\omega)}{Q(jk\omega)}\right| \ll \left|\frac{R(j\omega)}{Q(j\omega)}\right|. \tag{4}$$

Unfortunately, this method is difficult to apply to an aircraft because condition (4) is not fulfilled satisfactorily. Since the complex gain coefficient is expressed in the frequency domain, the selection of an increment and a method for numerical integration is based on the approximation of the frequency response of the automatic control system, represented by a quantized equation, to the corresponding continuous automatic control system, i. e., the calculation of the amplitude and phase errors of the quantized system as functions of the computational increments and the disturbance for the given method of numerical solution. The rate of computations for the quantiz-

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ACC NR: AT6029227

0

ed system is given by $\Omega = 2\pi/T$, where T is the quantizing increment, and is 6 to 10 times greater than the frequency of the disturbance for all methods of numerical solution. Hence, the values of the complex gain coefficients do not differ materially between the quantized and the continuous automatic control system. Therefore for the quantized system

$$W_D(j\omega T) = \alpha(\omega T) + j\beta(\omega T),$$

This complex gain coefficient can be expressed in the z-plane using conversion operators tabulated by the author and given in this paper. Considering limit conditions for $T \to 0$

$$\lim_{T\to 0} \alpha_T(\omega T) = 0; \quad \lim_{T\to 0} \beta(\omega T) = \omega.$$

The amplitude and phase errors are shown to be respectively

$$\Delta_M(\omega T) = |1 - \overline{M}(\omega T)|; \quad \Delta_\theta(\omega T) = |\bar{\theta}(\omega T)|;$$

Since these errors are frequency dependent, they have to be computed for various portions of the solution separately, using different increments. The author uses the longitudinal motion of an aircraft as an example for solving the corresponding system of nonlinear differential equations using a hybrid computer. Orig. art. has: 32 formulas, 3 figures.

SUB CODE: 01, 09,12/ SUBM DATE: 12Feb66/ ORIG REF: 004

Card 3/3 bjp

SAMARIN, A.M.; NOVIK, L.M., kandidat tekhnicheskikh nauk; GONCHARENKO, N.I., kandidat tekhnicheskikh nauk; TREGUBENKO, A.F., inzhener.

Vacuum treatment of molten metal. Stal' 16 no.8:700-707 Ag '56. (MLRA 9:10)

1.Chlen-korrespondent Akademii nauk SSSR (for Samarin).
(Steel--Metallurgy)

GONCHARENKO, N.I.

24-12-17/24

AUTHORS: Goncharenko, N.I., Zaykov, S.T. Kravtsov, P.Ya., Umnov, V.D. (Khar'kov).

TITLE: Use of ore-limestone briquettes in convertors. (Primeneniye rudoizvestnyakovykh briketov v konverternom proizvodstve).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.12, pp.78-80 (USSR).

ABSTRACT: Use of oxygen in convertors with basic lining permits processing of open hearth pig containing up to 0.30% P and up to 0.08% S. Therefore, acceleration of the process of formation of liquid lime-iron slag during the blowing, which lasts only 12 to 15 minutes, is of great importance. On the suggestion of the Ukrainian Institute of Metals (Ukrainskiy Institut Metallov) several series of experiments were made in the shops of the imeni Petrovskiy Works and the Yenakiyevo Works substituting iron ore and limestone by ore-limestone briquettes. The speeding up of the process of slag formation if such briquettes are used is attributed to the larger specific surface and the good mixing of the limestone and ore which, before briquetting, are crushed to a size of 1 to 3 mm. For making the briquettes, rich powdery iron ore with a low

Card 1/3

Use of ore-limestone briquettes in convertors. 24-12-17/24

content of silica is used. In one of the Works two series of experimental melts were made (60 melts, melting temperature 1250°C) with ore-limestone briquettes of the following composition: 27.12% Fe, 38.74% Fe_2O_3, 2.55% SiO_2, 21.44% CaO, 0.72% MgO, 0.95% Al_2O_3, 0.12% MnO, 0.02% P, 0.022% S. The slag formation is so rapid that slag specimens taken from the convertor three minutes after the beginning of the blowing period were perfectly homogeneous in spite of the fact that they contained 32% CaO; the data given in Table 3 indicate that the basicity of the slag after three minutes blowing remained almost constant and this proves the full and rapid dissolution of the limestone in the slag. Rapid slag formation and a high reaction ability was also proved in the experiments at the Yenakiyevo Metallurgical Works. Due to the higher fluidity of the slags obtained with a briquette variant, the bauxite consumption is reduced by 55 to 60% and the specific consumption of liquid pig-iron is also lower, resulting in an increase in output of 1 to 1.6% and a reduction of the specific oxygen consumption. Thus, ore-lime briquettes substituting

Card 2/3

Use of ore-limestone briquettes in convertors. 24-12-17/24

all the admixtures used at present represent fundamentally a slag forming mixture and a cooling agent and such a substitution leads to simpler and easier operation of convertor shops.
There are 3 figures and 4 tables.

SUBMITTED: April 19, 1957.

AVAILABLE: Library of Congress.

Card 3/3

DANIKHELKA, A., doktor, inzh.; MIKHAYLOV, O.A., kand. tekhn. nauk; GONCHARENKO, N.I.; KLIMASENKO, L.S.; OYKS, G.N., prof., doktor tekhn. nauk; SEMENENKO, P.P.; MOROZOV, A.N., prof., doktor tekhn. nauk; GLINKOV, M.A., prof., doktor tekhn. nauk; KAZANTSEV, I.G., prof., doktor tekhn. nauk; KOCHO, V.S., prof., doktor tekhn. nauk; ENEKESH, Sh., kand. tekhn. nauk; MOROZENSKIY, L.I., kand. tekhn. nauk; GURSKIY, G.V.; SPERANSKIY, V.G.; NOVIK, L.M., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; SHNEYEROV, Ya.A., kand. tekhn. nauk; PAPUSH, A.G., kand. tekhn. nauk; MAZOV, V.F.; SAMARIN, A.M.

Discussions. Byul. TSNIICHM no.18/19:17-35 '57. (MIRA 11:4)

1. Glavnyy staleplavil'shchik Ministerstva metallurgicheskoy promyshlennosti i rudnikov Chekhoslovatskoy respubliki (for Danikhelka). 2. Direktor TSentral'nogo instituta informatsii chernoy metallurgii (for Mikhaylov). 3. Direktor Ukrainskogo instituta metallov (for Goncharenko). 4. Glavnyy staleplavil'shchik Kuznetskogo metallurgicheskogo kombinata (for Klimasenko). 5. Zaveduyushchiy kafedroy metallurgii stali Moskovskogo instituta stali (for Oyks). 6. Zamestitel' glavnogo inzhenera zavoda im. Serova (for Semenenko). 7. Zaveduyushchiy kafedroy metallurgii stali Chelyabinskogo politekhnicheskogo instituta (for Morozov). 8. Zaveduyushchiy kafedroy metallurgicheskikh pechey Moskovskogo instituta stali (for Glinkov). 9. Zaveduyushchiy kafedroy metallurgii stali Zhdanovskogo metallurgicheskogo instituta (for Kazantsev). 10. Zaveduyushchiy kafedroy metallurgii stali Kiyevskogo politekhnicheskogo instituta (for Kocho).

(Continued on next card)

DANIKHELKA, A.---(continued) Card 2.

11. Nachal'nik tekhnicheskogo otdela Ministerstva chernoy metallurgii Vengerskoy Narodnoy Respubliki (for Enekesh). 12. Zamestitel' direktora Novotul'skogo metallurgicheskogo zavoda (for Gurskiy). 13. Nachal'nik tekhnicheskogo otdela zavoda "Dneprospetsstal'" (for Speranskiy). 14. Institut metallurgii im. Baykova AN SSSR (for Novik). 15. Nachal'nik staleplavil'noy laboratorii Ukrainskogo instituta metallov (for Shneyerov). 16. Nachal'nik laboratorii po nepreryvnoy razlivke stali Zhdanovskogo filiala TSentral'nogo nauchno-issledovatel'skogo instituta Ministerstva stroitel'noy promyshlennosti (for Papush). 17. Nachal'nik martenovskogo tsekha zavoda "Zaporozhstal'" (for Mazov). 18. Zamestitel' direktora Instituta metallurgii im. Baykova AN SSSR, chlen-korrespondent AN SSSR (for Samarin).

(Steel--Metallurgy)

VARNAVSKIY, I.N.; MIKHAYLIKOV, S.V., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; BAPTIZMANSKIY, V.I., kand. tekhn. nauk, dots.; LEVIN, S.L., prof., doktor tekhn. nauk.; OYKS, G.N., prof., doktor tekhn. nauk; GERBER, M.S.; BIGEYEV, A.M., kand. tekh. nauk. dots.; LIFSHITS, S.I., kand. tekhn. nauk; POLYAKOV, A.Yu., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; POPANOV, A.A., kand. tekhn. nauk, starshiy nauchnyy sotrudnik; OGRYZKIN, Ye.M.; GONCHARENKO, N.I., kand. tekhn. nauk; ABRAMOV, B.A., nauchnyy sotrudnik; MALINOVSKIY, V.G.; LAPOTYSHKIN, N.M., kand. tekhn. nauk; AFANAS'YEV, S.G., kand. tekhn. nauk; SHUMOV, M.M., starshiy nauchnyy sotrudnik; IVANOV, Ye.V.; EPSHTEYN, Z.D., starshiy nauchnyy sotrudnik.

Discussions. Biul. TSNIICHM no.18/19:107-119 '57. (MIRA 11:4)

1. Nachal'nik konverternogo tsekha Orsko-Khalilovskogo kombinata (for Varnavskiy. 2. Institut metallurgii Ural'skogo filiala AN SSSR (for Mikhaylikov, Abramov). 3. Direktor Ukrainskogo instituta metallov (for Goncharenko). 4. Dnepropetrovskiy metallurgicheskiy institut (for Baptizmanskiy, Levin). 5. Zaveduyushchiy kafedroy metallurgii stali Moskovskogo instituta stali (for Oyks). 6. Zaveduyushchiy laboratoriyey Yenakiyevskogo metallurgicheskogo tekhnikuma (for Gerber). 7. Kafedra metallurgii stali Magnitogorskogo gorno-metallurgicheskogo instituta (for Bigeyev). 8. Rukoboditel' konverternoy gruppy TSentral'noy zavodskoy laboratorii zavoda im. Petrovskogo (for Lifshits). 9. Institut metallurgii im. Baykova AN SSSR (for Polyakov).

(Continued on next card)

VARNAVSKIY, I.N.---(continued) Card 2.

10. Ural'skiy institut metallov (for Fofanov). 11. Institut chernoy metallurgii AN USSR (for Ogryzkin). 12. Nachal'nik TSentral'noy zavodskoy laboratorii Yenakiyevskogo metallurgicheskogo zavoda (for Malinovskiy). 13. TSentral'nyy nacuhno-issledovatel'skiy institut chernoy metallurgii (for Lapotyshkin, Shumov, Epshteyn). 14. Nachal'nik konverternoy laboratorii TSentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii (for Afanas'yev). 15. Nachal'nik laboratorii Vsesoyuznogo nauchno-issledovatel'skogo instituta ogneuporov (for Ivanov).

(Bessemer process)

SOV/133-59-4-22/32

AUTHORS: Tovpenets, Ye.S., Candidate of Technical Sciences, Goncharenko, N.I., Candidate of Technical Sciences, Ba~~biy, A.S., Engi~~neer, and Shcherbina, G.Z., Engineer

TITLE: Improvement of Mechanical Properties of Reinforcing Bars by Thermal Treatment (Povysheniye mekhanicheskikh svoystv armaturnoy stali posredstvom termicheskoy obrabotki)

PERIODICAL: Stal', 1959, Nr 4, pp 364-367 (USSR)

ABSTRACT: The possible degree of improvement of mechanical properties of St5 steel by thermal treatment and optimum conditions of such treatment were studied. Specimens from 5 heats were taken for the investigation (chemical composition - table 1). Parallel specimens were prepared from the usual rods and from rods which passed thermal treatment according to one of the following seven modifications, °C (in brackets - duration of cooling in water - seconds).

Card 1/4

SOV/133-59-4-22/32

Improvement of Mechanical Properties of Reinforcing Bars by Thermal Treatment

I	II	III	IV	V	VI	VII
800	800	850	850	900	900	900
(3)	(9)	(5)	(9)	(3)	(9)	(12)

After hardening the rods were annealed at 500, 600, 650, 670 and 690°C. In addition a part of the rods was hardened in water after electric heating (by resistance) to 820 to 850°C and from the temperature of the end of rolling with subsequent annealing at 650°C (the duration of cooling of rods 10 to 12 and 28 mm in diameter on hardening in water was 6 and 20 seconds respectively). The duration of electric heating of rods 12 mm in diameter did not exceed 2-3 minutes at a current of 1200 to 2100 a and 12 v. Tests for strength were done at room temperature and tests for bending and impact strength also at sub zero temperatures. The macro-structure was studied on impact strength specimens in the place of the break. The experimental results are given in tables and figures. It was found that mechanical properties of reinforcing profiles from low

Card 2/4

Improvement of Mechanical Properties of Reinforcing Bars by Thermal Treatment

carbon steel St 5 can be substantially improved by hardening with high temperature annealing (not only the tensile and yield strength are improved but also the impact strength particularly at low testing temperatures (up to -60°C see table 3). The influence of welding on the mechanical properties of thermally treated metal is non-uniform and depends on the method of welding (electric arc welding completely removes the improvement of mechanical properties obtained by the heat treatment while butt welding only partly removes the beneficial influence of heat treatment). The technico-economic effect of thermal treatment (table 4) with hardening from the temperature at the end of rolling is somewhat lower than on hardening from special heating to 850°C (particularly in respect of impact strength).

SOV/133-59-4-22/32

Improvement of Mechanical Properties of Reinforcing Bars by Thermal Treatment

There are 5 figures, 4 tables and 6 Soviet references.

ASSOCIATION: Donetskiy Industrial'nyy Institut i Yenakiyevskiy Metallurgicheskiy Zavod (Donetsk Industrial Institute and the Yenakiyevo Metallurgical Works)

Card 4/4

TOVPENETS, Ye.S.; ZARUYEV, V.M.; GONCHARENKO, N.I.; BABIY, A.S.

Effect of heat treatment over the heating needed for rolling on the mechanical properties of mine rails. Izv.vys.ucheb.zav.; met. no.4:145-152 '60. (MIRA 13:4)

1. Donetskiy industrial'nyy institut.
(Railroads--Rails) (Steel--Heat treatment)

GONCHARENKO, N.I., kand.tekhn.nauk; GRECHUKHIN, I.M., inzh.;
KARSSKIY, V.Ye., inzh.

Vacuum treatment of cast iron for roll casting. Stal' 21
no.12:1137-1141 D '61. (MIRA 14:12)

1. Lutuginskiy zavod prokatnykh valkov.
(Rolls(Iron mills))
(Vacuum metallurgy)

GONCHARENKO, N.I.

Metallurgy in India. Met.i gornorud. prom. no.6:88-89 N-D '63.
(MIRA 18:1)

GONCHARENKO, N.I.

The oxygen converter process is the basis for increasing the production of steel. Met. i gornorud. prom. no.1: 25-27 Ja-F '64. (MIRA 17:10)

1. Nachal'nik Glavnogo upravleniya metallurgicheskoy promyshlennosti Ukrainskogo soveta narodnogo khozyaystva.

GONCHARENKO, N.I., kand. tekhn. nauk

Quality deserves all your attention. Met. i gornorud. prom.
no.4:3-5 Jl-Ag '64. (MIRA 18:7)

1. Nachal'nik Glavnogo upravleniya metallurgicheskoy promyshlennosti Ukrainskogo soveta narodnogo khozyaystva.

GONCHARENKO, N.I., kand. tekhn. nauk; BABIY, A.S.; BAYDUK, V.F.;
BAZILEVSKIY, A.R.; MISHCHENKO, N.M.; MALINOVSKIY, V.G.;
NELEPA, V.I.; TOL'SKIY, A.A.; TRET'YAKOV, Ye.V., kand.
tekhn. nauk; KHALIF, M.L.; PODOPRIGORA, I.D.

Smelting of steel in oxygen- and steam-blown converters with an acid lining. Met. i gornorud. prom. no.4:20-25 Jl-Ag '65.
(MIRA 18:10)

GONCHARENKO, N.K., inzh.

Residual lengthening of ropes in multirope hoisting. Izv.vys.ucheb. zav.; gor.zhur. no.8:110-117 '59. (MIRA 13:5)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy gornoy mekhaniki.
(Wire rope) (Mine hoisting)

NESTEROV, P.P., prof.; SHABANOV-KUSHNARENKO, Yu.P., kand.tekhn.nauk;
GONCHARENKO, N.K., inzh.; VETROV, A.P., inzh.

Stretching of wire cables. Sbor. trud. Inst. gor. dela AN URSR no.12:120-134 '61. (MIRA 15:11)

1. Chlen-korrespondent AN UkrSSR (for Nesterov).
(Wire rope) (Strains and stresses)

SHABANOV-KUSHNARENKO, Yu.P., kand.tekhn.nauk; GONCHARENKO, N.K., inzh.

Principles of calculating the parameters of suspension apparatus for unbalanced multirope hoists. Sbor. trud. Inst. gor. dela AN URSR no.12:152-162 '61. (MIRA 15:11)

(Mine hoisting)

GONCHARENKO, N.K., kand. tekhn. nauk; PETROV, A.P., inzh.

Relationship between the conditions for using ropes and the selection of the optimum stretching force. Izv. vys. ucheb. zav.; gor. zhur. 6 no.8:149-153 '63. (MIRA 16:10)

1. Institut gornogo dela AN UkrSSR. Rekomendovana kafedroy gornoy mekhaniki Khar'kovskogo instituta gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki.

NESTEROV, P.P.; SHABANOV-KUSHNARENKO, Yu.P., kand. tekhn. nauk;
GONCHARENKO, N.K., kand. tekhn. nauk

Effect of the rope slippage along the deflecting pulley on the distribution of stresses between the ropes of multirope hoisting equipment. Izv. vys. ucheb. zav.; gor. zhur. 8 no.1:89-94 '65. (MIRA 18:3)

1. Khar'kovskiy institut gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki. 2. Chlen-korrespondent AN UkrSSR (for Nesterov). Rekomendovana kafedroy oborudovaniya gornykh predpriyatiy Khar'kovskogo instituta gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki.

L 43095-66 EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JH/JD/WB

ACC NR: AR6014381 (A,N) SOURCE CODE: UR/0137/65/000/011/D048/D048

38
B

AUTHOR: Goncharenko, N. K.

18 18 17

TITLE: Investigation of corrosion-fatigue strength of cable wire and wire cables

SOURCE: Ref. zh. Metallurgiya, Abs. 11D342

REF SOURCE: Sb. Stal'n. kanaty. Vyp. 2. Kiyev, Tekhnika, 1965, 211-214

TOPIC TAGS: wire, wire cable, zinc, aluminum, metal corrosion, sulfuric acid

ABSTRACT: Experimental results on the effectiveness of protection against corrosive destruction of unloaded wire specimens are presented. Sulfuric acid served as the corrosion medium. Zn and Al wires served as protectors. Mechanical experiments were carried out, and the results of experiments are presented. Recommendations for increasing the corrosion stability of the cables studied are given. A. Leont'yev [Translation of abstract]

SUB CODE: 11

Card 1/1 mlp UDC: 677.72

GONCHARENKO, N.M.

Automatic submerged arc welding of annular seams on thick-walled boiler cylinders. Proizv. opyt v obl. svar. no.1:57-68 '56. (MLRA 9:10)

(Boilers--Welding) (Electric welding)

GONCHARENKO, N.M.

Automatic machine for welding pins to boiler baffle tubes.
Proizv. opyt v obl. svar. no.1:95-100 '56. (MLRA 9:10)

(Electric welding)

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27933
S/135/61/000/010/002/008
A006/A101

AUTHORS: Kotov, B. I., Goncharenko, N. M., Filonov, K. S., Engineers

TITLE: Mechanization and automation of welding operations at the "Krasnyy Kotel'shchik" Plant

PERIODICAL: Svarochnoye proizvodstvo, no. 10, 1961, 14-17

TEXT: In order to fulfill the requirements of the current Seven Year Plan, the Plant mentioned above must achieve an increased production of boilers mainly through mechanization and automation of welding operations. The following main fields of welding operations and achievements brought about are enumerated:
1) Electric slag welding. This process is now being used for welding 24 mm thick metal; bi-layer metal; up to 90 mm thick austenite chrome-nickel shells; large size shells of 40 - 90 mm wall thickness, 3,100 mm in diameter, up to 2,100 mm length and 120 mm thick and 2,000 mm long panels. Welding is carried out with devices A-340 and A372M, austenite wire Св-1Х18Н9Б (Sv1Kh18N9B) under ТКЗ-НЖ (TKZ-NZh) flux. In comparison with multi-pass automatic welding the production cycle when using electric slag welding was reduced by 35-40%, labor consumption by 30%, power consumption by almost twice and flux consumption by a factor of 20.

Card 1/3 X

27933 S/135/61/000/010/002/008
Mechanization and automation of welding ... A006/A101

2) Automatic and semi-automatic submerged electric-arc welding. The Plant developed a number of automatic machines including a device with an automotive column and a portal type machine for the welding of containers. Automated welding was also applied for thin-walled large-size 1Х18Н9Т (1Kh18N9T) steel containers of 3060 mm in diameter, 10,780 mm cylinder length, and 6 mm wall thickness. The operational temperature of the container wall was - 180°C. The welding of the cylindrical section was 50% automated, the panels were welded with tractor ТС-32 (TS-32) which had been redesigned. A machine with a chain beveling tool and a carriage, moving together with the welding torch, is being used for the automatic welding of frame-beam structures of boilers; a rotary type machine with adjustable inclination of the face plate is employed for welding flanges to 200 - 1,600-mm sleeves and pipes. Satisfactory results were obtained with automatic building up with austenite steel of sealing surfaces of boiler fixtures and high-pressure steam preheaters. Several units with a rotating face plate were designed to fasten built-up parts of various sizes and weights.
3) Resistance butt welding of pipes. Resistance welding has been fully automated and the following butt welding machines are being used: МСМ-150 (MSM-150), АСМ-150 (ASM-150), АСМ-300 (ASM-300), МСМ-320 (MSM-320) and МСО-400 (MSO-400). At the recommendation of TsNIITMASh butt-welding of pipes by continuous flashing

Card 2/3

Mechanization and automation of welding ...

27933 S/135/61/000/010/002/008
A006/A101

was developed and introduced. From 1957 butt welding of perlite steel pipes was assimilated, eliminating internal burrs by oxygen-air blast. Presently research is directed on butt welding of pipes with induction heating. 4) Flame cutting of metals is widely used. Manual and machine oxygen cutting is employed for cutting carbon low-alloy and two-layer steels and oxygen-flux cutting for cutting high-alloy steels. From 1957 the aforementioned operations have been carried out with the aid of natural gas. With the assistance of the Rostov NIITM, the Institute of Electric Welding imeni Ye. O. Paton, NIITVCh imeni V. P. Vologdin, TsNIITMASh, and the Taganrog Radio-Engineering Institute, the "Krasnyy Kotel'shchik" Plant is occupied with a series of investigations and projects including the weldability of new steel grades, the development of efficient electrodes and welding fluxes. In the honour of the XXII KPSS Congress the Plant undertook to design the first ТПП-110 (TPP-110) boiler with 950 t/hour steam capacity. There are 7 figures and 1 Soviet-bloc reference.

Card 3/3

GONCHARENKO, N.M. [Honcharenko, N.M.]

How we are struggling for the right to be called a collective of communist work. Farmatsev. zhur. 18 no.5:68-70 '63. (MIRA 17:8)

1. Apteka No.166 g. Gorlovki.